heat if needed, which, however, is better avoided if possible. Unless the patient complain of pain, or much uneasiness in the injured limb, or the surgeon entertain fears on the state of the soft parts, it would be as well to defer the section of the bandage to the second or fourth day, when, if the apparatus fulfil the views proposed, it is made secure again with a starched bandage; if it exercise too much pressure, the edges must be separated, the interval being filled up with a little softened pasteboard; the exterior surface is then to be smeared with starch, and the apparatus surrounded by a starched bandage, very little compressed. Folds and plaits that press the skin irregularly are to be removed; the pieces that exercise injurious local pressure are to be wet slightly with water; pieces of lint are to be inserted where necessary, and the whole to be surrounded by the starch bandage, care being taken to make a daily inspection to see that all is right. If the apparatus appear defective in any particular, it should be removed, having been previously wet with tepid water, and replaced by another, less objectionable.—*Dublin Journ. Med. Sci.*, Nov. 1842.

47. *Rare Cases of Strangulated Hernia.*—M. Gerdy has met with two very curious cases of strangulated hernia. In the first the constriction took place in a narrow canal of seven or eight centimetres long, which existed along the course of the superior strait of the pelvis, and of the external iliac artery. The patient died after the operation. In the second, the hernia occurred on a level with the anterior superior spinous process of the ilium; it lay betwixt the external and internal oblique muscles, and was complicated by the presence of the testes, the adhesions of which to parts around, had, in fact, opposed the farther downward passage of the small intestines, which had therefore mounted above the iliac spine.—*L. & E. M. Journ. Med. Sci.*, May, 1843, from *L'Expérience*, Jan. 12, 1843.

48. *Vesico-Vaginal Fistula.*—The *Archives Générales de Medecine*, for March, contain a very lengthy but interesting communication on the treatment of vesico-vaginal fistula, with the detail of two successful cases, by M. Lallemand, of Montpellier. The first case is that of a lady, twenty-three years of age, labouring under this affliction from the use of instruments in her first labour. The fistula was situated about three and a half inches from the orifice of the urethra; its transverse diameter was about an inch and a half, the two lips being separated to the extent of half an inch, and the posterior one masked by a fold of the vesical mucous membrane an inch long, one third of an inch high, and one fourth of an inch thick. The greater part of the circumference of the vagina behind the fistula was blocked up and narrowed by semicircular, thick, and hard cicatrices, into which the first phalanx of the index finger could not be passed, whilst the index and medius fingers together could be passed into the bladder through the fistula.

The first step directed by M. Lallemand under these distressing circumstances, was the dilatation of the vagina by large bougies, and afterwards by conical gum elastic cylinders, which unfortunately proved, on the patient's return to Montpellier in two months' time, to have been misapplied, inasmuch as the fistula was much increased in size, and the vaginal contraction in the same state as previously. M. Lallemand, after having then for a few days attempted to dilate the vaginal passage, on the 22d of February, 1836, applied the actual cautery on the flap of vesical mucous membrane which blocked up the posterior lip of the fistula, so as completely to destroy it. The sloughs separated in a few days, and the anterior lip having been brought into the same state by the application of the nitrate of silver, the entire edges of the fistula being fresh and bleeding, the hooked catheter (*sonde-airigne*) was immediately applied, a task of some difficulty on account of the depth of the fistula and the impossibility of introducing the finger beyond the contraction of the vagina; the vesico-vaginal parietes consequently not being supported, were pierced by the hooks with difficulty, and it could not be ascertained whether they were at a proper distance from the posterior lip of the fistula. If they had been too near, the soft parts would have been torn; and if too far, the cervix uteri might have been

injured. Guided, however, by the marks engraven on the stem of the instrument, the hooks were confidently forced in, and the instrument being slowly drawn, the fistula could be felt with the index of the other hand to be gradually closing; the movable plate was then wrapped up with lint, and the spring worked until the coaptation was complete. The instrument was then perfectly fixed by its own mechanism. It was withdrawn five days afterwards, and a common elastic catheter passed for a few days, after which the patient made water as usual. Four weeks after the operation, the parts were examined with the speculum, when a transverse band of a bright red colour, half a line wide and more than an inch long, was seen on a level with the contracted part of the vagina, the cicatrices of which prevented the extremities of the band being seen. The patient, being now able to retain her water for three or four hours, left Montpellier, to which she returned in the following spring, complaining of fluor albus, the discharge being very liquid. Lallemand at first thought the cicatrix had given way in some part, but this was proved not to be the case by a very careful exploration; there were found two small and tortuous canals on either side of it; the cauterization of which arrested the discharge. The bladder was kept empty for several days after the application of the actual cautery. The patient recovered perfectly, and the catamenia, which had been absent from the time after confinement, soon reappeared, and resumed their natural course.

In the second case, the vesico-vaginal fistula, which was also caused by the use of instruments, was situated about three inches posterior to the meatus urinarius, having a transverse diameter of nearly one inch and a half, and nearly an inch in the antero-posterior direction. The vagina was contracted by two thick cicatrices, but not sufficiently to prevent the passage of the finger beyond the posterior lip of the fistula. The right lower extremity was partially paralytic and contracted. The operation was performed as in the preceding case, the edges of the abnormal communication between the bladder and vagina having been freshened by the actual cautery and the subsequent removal of the sloughs, the parts were brought into coaptation by the hooks of the sonde-airigne, which was kept in for several days, and then replaced by a common elastic catheter. The state of the parts was examined a few weeks afterwards with the aid of the speculum, when the fistula was found to be closed, except in the centre, where there was an interval of a line in extent, which soon healed under the application of the nitrate of silver. The patient was dismissed, cured of her infirmity, three months after the performance of the operation.

The proceeding thus advised by Lallemand requires much care in order not to involve any part of the uterus, for a case is recorded by him, in which the hooks having been applied to the part of the bladder covering the womb, and in all probability into the womb itself, pain in the pelvis, speedily extending over the whole abdomen, set in, and notwithstanding the removal of the instrument, symptoms of gastro-enteritis and hepatitis with delirium became manifest, and although the patient for a time survived the attack, she gradually sunk into a state of exhaustion and marasmus, with disturbance of the intellectual functions, and died in the course of the ensuing year. On examination of the body, traces of chronic peritonitis, disease of the liver, and effusion of serum within the cranium were discovered; although the womb was not found to be the seat of organic changes, M. Lallemand is convinced from the symptoms, that it was the source of the complicated diseases which destroyed his patient, and in this opinion he was confirmed by the results of another case which terminated fatally in eight days, the autopsy presenting similar appearances to those in the preceding case. In those cases, therefore, where the fistula is situated on a level with the cervix uteri, it is advisable to attempt a cure only by means of cauterization made with great care, and renewed at long intervals.

The employment of the *sonde-airigne* is not adapted for those cases of fistula where the opening is so exceedingly small that it can be closed by the swelling induced by the cauterization of the parts, or where the fistula is of such a size as to occupy the larger part of the vesico-vaginal septum, so that the edges of the fistula could not be brought into contact, or finally where a healthy charac-

ter of inflammation cannot be excited so as to ensure reunion. As a general rule, the chances of success are in the inverse proportion to the duration of the infirmity, because, according to the length of time the diseased state has existed is the degree of irritation and unhealthy inflammation about the parts, and the disordered condition of the general health, consequently the less likelihood is there of a pure and proper character of inflammatory action setting in, and the consequent formation of a firm cicatrix.

It is a task of exceeding difficulty to freshen the entire circumference of the fistula with cutting instruments; some points will escape division, or not be cut with uniformity, while at the same time if a cutting instrument be used effectually, a greater portion of the soft parts is removed, and the opening consequently made larger, without any special advantage, than when cauterization is had recourse to. Swelling of the adjacent part is not occasioned, as when the latter process is employed, the tumefaction being of service in rendering the coaptation more easy and more complete. The actual cautery should be had recourse to whenever it is requisite to destroy certain parts and to remove inequalities, especially when the opening is very large, or masked and sinuous, so that its course cannot be followed with a stick of nitrate of silver. The instrument should be of an olivary shape, not more than a line in diameter in the most enlarged part, and the stem still thinner. Probes of different sizes and shapes should be used for the tortuous canals. The inferior paries of the vagina must be protected from the influence of the cautery by the demi-speculum, and the upper part by a large spatula made with an elbow, that there be not any shadow cast by the hand of the assistant. The spatula will serve at the same time to bring the diseased parts into view.

The *sonde-airigne* is preferable to the suture in every case where the fistula is transverse, or can be brought into that form, which can almost always be done when the operation is possible. Out of twenty-one cases, M. Lallemand has only met with one oblique and irregular fistula, the reunion of which could not be effected from behind forwards. If the sutures are not sufficiently tightened, or become relaxed by the slow section of the parts engaged, the lips of the fistula gape, and the operation must be repeated, for there is not any means of increasing the compression. It is not so with the sonde-airigne, as the pressure with it can be increased or decreased at pleasure, nor can the edges of the wound get out of place, they being kept *in situ* by the hooks of the instrument, which, at the same time, retain the instrument itself in a state of immobility. It has been employed by M. Lallemand in fifteen cases, and he has been successful with it in nine, not always at the first operation, but at the utmost in two, but the most frequently the application of caustic has been sufficient to effect a cure afterwards.—*Prov. Med. Journ.* April 8, 1843.

49. *Cancer of the Mamma: statistics of the disease: treatment by compresses of hydriodate of potass, &c.*—M. Tanchou read to the French Academy of Sciences on the 14th November last, a communication in relation to the prevention of the cancerous degeneration. He supposes that diseases of the mamma increase in proportion as civilization advances; and he has attempted to show this by a series of tables. In the department of the Seine, in 1830, 668 died from cancer: in 1840, 889, being an increase of from 1·96 to 2·40 per cent. on the total mortality during that period of 382,851 individuals. In Paris alone, in 1830, 595 fell victims to this disease; while in 1840 there were 779, giving a mortality of 2·54 per cent. on the deaths; while in the rest of the department, the deaths were—in 1830, 73; in 1840, 110; or 1·63 of the total number. M. Tanchou condemns excision, as well as the employment of caustic as a substitute for this treatment. He recommends several methods, and among others, that by compression: the compresses to be formed of the hydriodate of potass, five parts; sponge in powder, ten parts; the hydrochlorate of ammonia, forty parts; and the hydrochlorate of sodium, ten parts; or a powder composed of powdered sponge, twenty parts; nitrate of potass, and Florentine iris, of each one part. Thirty people have been treated in this way, all of whom appeared to have derived